

## 15,000 DEATHS LIKELY IN 1922 ON HIGHWAYS

Seven Thousand Struck Down  
Last Year at Crossings  
Inspires Reform.

The growing demand for wider and safer roads and stronger bridges has awakened the officers and directors of the American Road Builders' Association to the need for action and the program committee has provided for an exhaustive discussion of the subject at the Twelfth American Good Roads Congress and Thirteenth National Good Roads Show to be held in Chicago January 16 to 20.

The elimination of grade crossings will be one of the phases considered. Out of 12,000 persons killed on the highways of the country last year, 7,000 were struck down at grade crossings. Investigation has shown also that one motorist in every three is killed on a grade crossing, approaching the railroad tracks at reckless speed and without taking due notice of approaching trains.

**Railroad Sufferers.**

The Pennsylvania and Southern Pacific railroads, especially, have been heavy sufferers from grade crossing accidents. On the Southern Pacific lines alone during the past three years 1,900 motor cars and trucks were wrecked at grade crossings. In 490 cases, or more than 20 per cent, the motorists deliberately ran into the trains. In 122 instances automobiles plunged through the crossing gates. Nine crossing flagmen were struck down.

In 970 cases in which motorists ran in front of the trains 136 persons were killed and 405 were injured. In 490 cases motor cars stalled on the crossing and were demolished. Forty-three cars actually collided with the danger signals.

An investigation conducted recently by the Maryland State Roads Commission demonstrated that most highway accidents occur on long stretches of road instead of at the curves and are due to speeding or reckless driving, rather than skidding.

**Insurance Companies Pay.**

A total of \$4,500,000 was paid out in death claims by American insurance companies for the 12,000 persons killed on the highways last year. In addition to the fatalities there were 1,500,000 non-fatal injuries.

Automobile fatalities in 1918 were 9,542. In 1919 the number increased to 9,826. Considering the 12,000 accidents last year and basing their calculations on the experiences of St. Louis, Cleveland, New York, Chicago and other cities for the first six months of 1921 experts estimate that this year's fatalities on the highways will reach 15,000.

A total of 690 persons were killed on New York State roads and city streets during the first six months of this year. Of this number 403 met their death in New York city.

At a recent drawing of space for the good roads show in Chicago \$5 per cent of the 40,000 square feet of space was taken, creating all records and necessitating the use of additional buildings to house the exhibits. Approximately \$1,500,000 worth of labor-saving road machinery and appliances will be exhibited.

## TIRES UNCARED FOR WEAR OUT IN GARAGE

Water, Oil, and Rust Are Great-  
er Enemies Than Use,  
Sellers Say.

An inspection of crippled tires in the collection of any repairman will reveal the fact that a larger percentage of the trouble comes from neglect in the garage at home. If stones, ruts and road roughness were the only things that wore out tires, repair bills would be out in half.

Water, oil, grease and light-rubber's worst enemies—work in a garage more actively than on the road. In washing the car, the rims are liable to become rusty and eat away the tire. A coat of graphite or compound grease polish will prevent this and keep the tire from creeping.

Oil or grease should never be allowed to stand on a garage floor. Small cuts or bruises on the tire surface say Miller tire men, should be repaired at once. If a tire has been smeared with grease, it should be washed thoroughly with cold water and a little soap.

The spare tire is often forgotten while the other tires are giving good service, and neglect sometimes causes it to deteriorate rapidly. Always it should be protected from rain, sun and dirt by a cover. Once in a while change it with one of the tires on the car, so that the rubber will not harden from disuse.

The weight of the car should never be left on a deflated tire. Such treatment is as bad as running on a flat tire and is certain to crack the carcass, jerk up the wheel, or take off the tire entirely.

**Saving Power.**

Because bearings turn harder in cold weather it is advisable when starting the engine of a car to retard the spark, open the throttle about a quarter and throw out the clutch. This releases some of the load on the starter and saves an unlimited quantity of electrical current.

**Tighten Engine Bolts.**

Bolts, those which hold the engine in place, when loose, may cause misalignment of the power plant, resulting in serious trouble. If there is even a slight looseness of the bolts, it may permit the motor support to hammer and pound, and in time the supporting arm may be actually fractured.

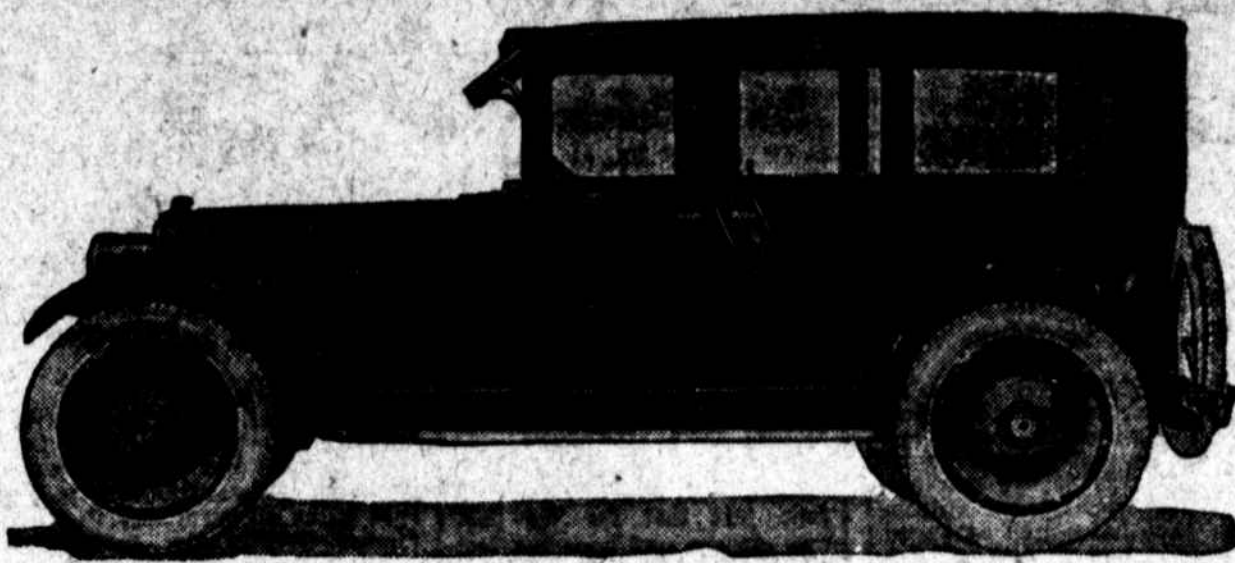
**Suppress Them.**

Abnormal noises in the car should be a warning. If it is a squeak, locate the cause and lubricate the part. If caused by loose parts, locate them and tighten the bolts.

**Long and Short Wheel Bases.**

Because of the increased length of leverage and centrifugal force, a car with a long wheel base is more likely to skid than one with a shorter wheel base.

## THE RICKENBACKER SEDAN



### AROUND THE TOWN

B. B. Alcorn, formerly with the Dort Distributing Company, has joined the sales force of the Powell Motor Agency, Elgin and Elkhart representative, at Fourteenth street northwest.

Mr. Alcorn has considerable motor sales experience both in Washington and in New York city where he was with General Motors.

The New York Tire and Rubber Company will handle the retail sales and service for Miller Tires at 1115 Fourteenth street northwest. A well arranged sales department and a shop for vulcanizing and repairing have been formally opened by T. C. Restifo, president, and V. M. Teano, manager of the firm.

Both members of the firm are men of extensive automotive experience and will meet with substantial success with the popular Miller line.

Mr. Restifo was formerly with the Brookland Auto Supply House, while Mr. Teano was with the Ajax Rubber Company.

"Dick" Israel, who is well known to local motorists is member of the sales organization of the company. The turbulator, a device which has recently been placed upon the local market, is said to be delivering the goods for Ford owners who have given it a trial.

The manufacturers claim that this device will prevent many of the ills to which motors are subject by so floating gasoline as to make it practically 100 per cent combustible.

The turbulator was conceived and perfected by one of the foremost carburetor engineers in America, William A. Edwards. For years Mr. Edwards was a research and designing engineer for the Stromberg Carburetor Company and the Rayfield Carburetor Company, who manufacture two of the most widely used carburetors in the world. He was also a research and designing engineer of the Stewart Warner Speedometer Corporation.

His sensational discovery—the Turbulator—was perfected after seven years of research work to increase the carburetion of gasoline and to do away with the formation of carbon on spark plugs and in the combustion chambers of gasoline engines. Carbon is really a mighty power unit in gasoline, but carburetors cannot utilize this power.

It is estimated by engineers that 17 per cent of the present-day gasoline is too heavy for a carburetor to handle properly (that is, to put it into combustible form), hence this 17 per cent constantly creates carbon deposit

and subsequent trouble and expense. The Turbulator has solved the problem of turning this 17 per cent waste and trouble-maker into real live power. It has proven a positive sensation in the automotive industry and it is conceded by engineers to be the greatest discovery of the age. It is a revolution to engine and automobile manufacturers and owners.

Practically 90 per cent of all engine trouble is caused by the inferior quality of present day gasoline. Most automobile owners blame the manufacturer for engine troubles which are nearly always due to low grade gasoline, which is the only kind now sold for engine use.

The turbulator starts to function after the carburetor is through. The high velocity of air passing through the venturi of the carburetor in conjunction with the terrific jet action causes an intensified form of vaporization. Such action breaks up all heavy globules in gasoline and turns them into a real explosive mixture. Thus the motor equipped with turbulators utilizes all of the gasoline instead of only 83 per cent.

Turbulators are on sale at the Rayfield Service Station, 1119 Fourteenth street and by the A. B. C. Motor Company, 617 New York Avenue northwest.

**Overcoming Rusted Fenders.**

The common cause of fenders rusting at the fastenings is neglect in not washing the under side of the fenders, which are sure to accumulate a certain amount of dirt and mud. A rust preventive, or an application of oil will aid in preventing this condition, but the most reliable precaution is to prevent the accumulation of mud.

**Clutch Trouble.**

One of the most common complaints among car owners is the improper action of the clutch. The clutch throwout collar needs constant lubrication and in many cars failure to give this unit attention even for a single day may mean trouble.

**Ignition in Cylinders.**

In a gasoline engine, ignition occurs a few degrees before the piston reaches top dead center on the compression stroke.

## CHEVROLET

"For Economical Transportation"

The lowest priced fully equipped car in America

**\$525 F.O.B. FLINT**

Chevrolet "Four-Ninety" Models

Touring Car or Roadster \$535 Coupe or Sedan \$575

Chevrolet "F5" Models

Touring Car or Roadster \$575 Coupe or Sedan \$615

Light Delivery Wagon (one seat) \$525

All Prices F. O. B. Flint, Mich.

Barry-Pate Motor Company, Inc.

1218 CONNECTICUT AVENUE N. W.

# FINAL REDUCTION

Effective at once

5-passenger Touring .....	\$1295
4-passenger Scout .....	1345
2-passenger Roadster .....	1345
5-passenger Sedan .....	2195
4-passenger Coupe .....	2195

f. o. b. factory

116-inch Wheelbase, Valve-in-head Motor, Cord tires

These are rock bottom prices.

Compare the specifications—

Then Compare the price.

POWELL MOTOR AGENCY

1821 14th St. N. W.

Phone North 9212

# Elgin Six

## WILLS ST. CLAIRE CAR MAKES NEW RECORDS

Runs From Detroit to New York  
In Less Than One  
Day.

Wills-Sainte Claire cars, now being inspected for the first time by visitors at the automobile shows, attracted instant attention when they arrived on the market less than a year ago, because they were the first independent offering of C. Harold Wills and because they were known to embody a store or more of innovations, the use of Molybdenum steel, for instance.

These new practices in automotive design and construction made interesting and convincing reading. The all-important question of performance, however, was a matter that could only be illuminated by actual trials on the road. During the last six months the car has figured in a number of road runs and cross-country flights so spectacular in nature and results that Mr. Wills' creation seems to have thoroughly demonstrated that its performing powers and its roadability are of an exceptional order.

One of the first and most sensational runs was from Detroit to New York in a day. Mr. Wills did all the driving on this trip, although he did not and never has been a professional

pilot. Using the standard stock touring car and carrying three passengers and 275 pounds of baggage, Mr. Wills made the trip over roads he had never covered before in the remarkable time of twenty hours and twenty-six minutes. The last six hours the car passed through heavy rain and thick fog.

The motoring public of California were specially impressed with the run made by Frank Morris and Clark Rogers of the Western Motors Company, who drove from San Francisco to the Yosemite Valley in six hours and twenty-eight minutes and returned in six hours and thirty-one minutes. The elapsed time was thirteen hours and twenty-two minutes for the 373-mile round trip. This is one of the hardest mountain trips in the world and motorists who make one way in the time it took the Wills-Sainte Claire to cover the round trip consider they have done a very creditable job.

Still another spectacular performance was a run from New York to Boston and return. This was made in the same car Mr. Wills used in the Detroit-New York trip. No adjustments were necessary. The total elapsed time from New York to Boston and return was eleven hours and forty-seven minutes.

**To Clean Reflectors.**

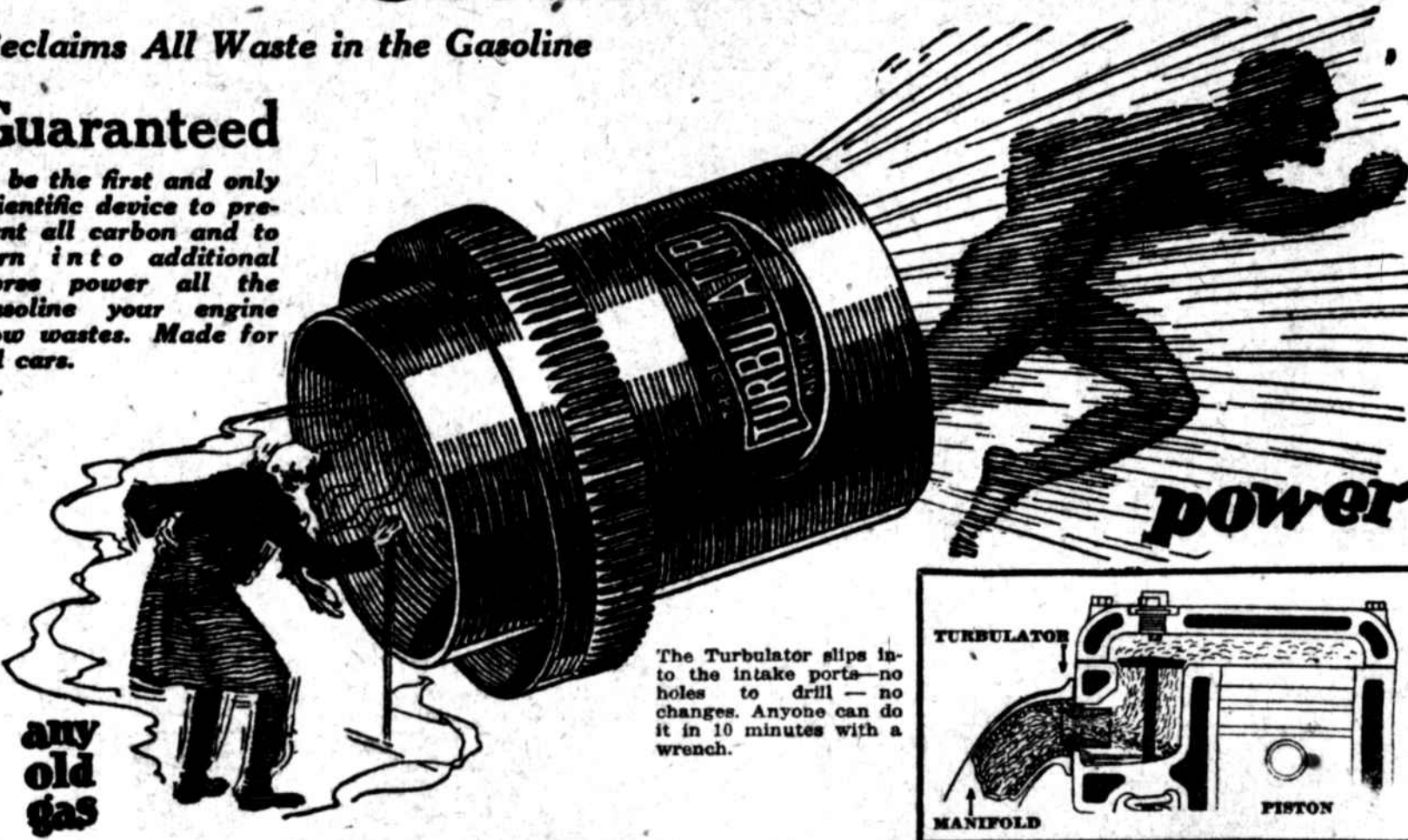
Headlights reflectors become easily scratched. To polish them clean thoroughly with a stream of water without rubbing, and then polish with rouge, as is used by jewelers, applying rotary motion. Because of the silver plates, do not rub hard.

# Keeps Your Ford Engine Clean Inside

Reclaims All Waste in the Gasoline

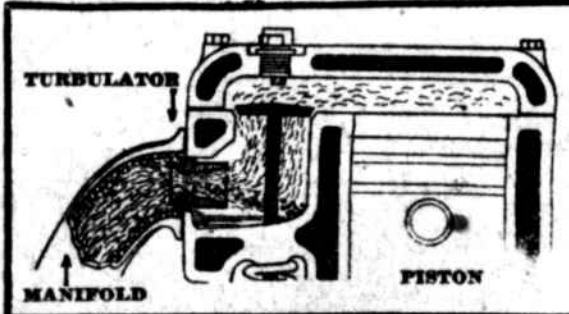
Guaranteed

to be the first and only scientific device to prevent all carbon and to turn it into additional horse power all the gasoline your engine now wastes. Made for all cars.



any old gas

The Turbulator slips to the intake ports—no holes to drill—no changes. Anyone can do it in 10 minutes with a wrench.



# The Turbulator

"Works while you ride"

**The Sensation of the Motor World**

Over 80% of all your motor troubles are due to present-day gasoline. Automotive engineers and carburetor manufacturers admit this. Until the sensational discovery of the Turbulator made by W. A. Edwards, one of the foremost Carburetion Engineers, no device was ever made that could put a stop to this appalling waste and trouble. Fouled spark plugs, carboned pistons, sooty valves, dirty combustion chambers, worn bearings, scored cylinders, diluted oil, hard starting, are now banished forever. The Turbulator will keep your Ford engine absolutely clean inside.

**Nothing Else Like It**

The Turbulator is not an air-bleed, spark intensifier or vapor injector. It is utterly unlike all so-called economizers, fuel adulterants and make-shift devices. It is strictly a scientific device for handling gasoline. The Turbulator is a revolutionary patented improvement, designed by the very man who helped design the two biggest selling carburetors in America. He knows that no carburetor today can utilize more than 75% to 80% of present-day gasoline, because practically 17% is kerosene and other unrefined oil. It is this unburned fuel, which your engine absolutely wastes, that the Turbulator traps and breaks up into highly combustible gas. It makes POWER out of waste—stops the trouble and money leaks.

**Authentic Test at Armour Institute Proves Merit of the Turbulators.**

Dynamometer tests made at the Armour Institute of Technology, Chicago, on the Institute's own Ford engine equipped with Turbulators, showed remarkable increase in horse power, torque and gasoline economy. Numerous road tests prove that the Turbulators are the greatest improvement ever made for any engine.

**You Notice the Difference the First 500 Feet**

Before you slip your Turbulators into your Ford, look at your spark plugs. Note how caked with carbon, how oily and sooty they are. Then put them back—just as they are—soot and all. Then put in the Turbulators. You notice the difference at once. Smoother riding, snappier pick-up, more power! After a few hours' riding look at your spark plugs. They're clean as a hound's tooth. Valves and combustion chambers are soon cleaned up. Carbon is gone—never to come back. Your engine gets 100% benefit from the lubricating oil, because it can't become diluted. It is no longer necessary to spend money for removing carbon, grinding valves, reboring cylinders, etc.

**Special 10 Days' Trial Offer**

The Turbulator has never failed to give any Ford more power and zip than it ever had before. It has always made a poor engine good, and the best engine better. Results have always been a carbon-free engine, added power, freedom from motor trouble, and easy starting in coldest weather. Because of this wonderful record we are willing to place a pair of the Turbulators in your Ford on 10 days' trial. If, at the end of that time you are not more than satisfied with the marvelous results, every penny of your \$5 deposit will be promptly refunded. We take all the risk because there is no risk. Drive your Ford to our Service Station mentioned below and have a pair installed. Make your Ford engine stay clean inside.

**Out-of-Town Ford Owners, Satisfy Yourself at Our Risk**

If you cannot drive in to service stations mentioned below, send \$5 today and you will receive by return mail, all charges postpaid, a pair of Turbulators, ready to install in a few minutes. You can do it easily with a wrench—no holes to drill—no changes. Get rid of your motor troubles forever. If you are not satisfied after 10 days' trial, return the Turbulators and your full \$5 will be promptly refunded. Mail your check or a \$5 bill today.

THE TURBULATOR CORPORATION, 2635 S. Michigan Ave., Chicago

Drive Your Ford to Our Service Stations

RAYFIELD SERVICE STATION  
1119 Fourteenth Street N. W.

A. B. C. MOTOR COMPANY  
617 New York Avenue N. W.

**Eats Off Carbon, Keeps It Off**



Two or more of your spark plugs usually look like this—dirty, sooty, caked with carbon. How can they work right?



A single day's driving with Turbulators makes such a plug look like this. The Turbulators keep them that way all year.

**How It Works and Why**

If you throw coal in a fire, combustion is slow. But if you throw on finely powdered coal, it explodes. It is the air around each particle that causes instant combustion. 17% of your gasoline reaches the motor in globules (like lumps of coal). The Turbulator, by introducing turbulence in a scientific way breaks up these globules, and complete combustion results.

**Ford Dealers**

The Turbulators are the greatest trade built-up ever sold. Every Ford owner in the country needs a pair. We want dealers everywhere to handle the trade. Write or wire for literature describing our special dealers' proposition.